

RTCA Special Committee 209
ATCRBS / Mode S Transponder MOPS Maintenance

Meeting #7

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**Clarification of Appendix B definition
and use of Application Entity (AE)**

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SUMMARY

This Working Paper presents a clarification for the use of Application Entity (AE) in the proposed draft of Appendix B for the Mode S Specific Services.

1.0 Introduction

Term “Application Entity” was introduced in the creation of Appendix B from the original RTCA/DO-218B for the purpose of separating the terminology from “ADLP.” As a point of discussion at the last RTCA SC-209 meeting, the question was raised whether or not to also change the ADLP terminology to “AE” in the formats for Register 10₁₆ and 20₁₆. It was suggested that we leave the terminology of ADLP and GDLP in those specific Register formats. An Action Item was raised to draft a note to be put into Appendix B explaining the differences between ADLP and AE.

2.0 Proposed Change

Inclusion of a note into §B.1.3 is proposed to clarify why the Mode S AE is employed, in lieu of referencing a full Mode S ADLP entity.

B.1.3 Mode-S Application Entity (AE) / Transponder Interface Management

The Mode S AE controls the interface to the Mode S Transponder based on information received from the Higher-Layer Entity (HLE) via the Specific Services Entity (SSE) interface, and based on the internal processing requirements of the AE. Additionally, the Mode S AE receives information via the AE/Transponder interface, which must be processed and transferred to the HLE.

The Mode S AE must also establish and maintain the local relationship between the Mode S Aircraft AE and the various Mode S Ground AEs with which it communicates.

Note: In the framework of these Mode S Specific Services referenced herein, the Mode S AE supports the functionality required to support implementation of these capabilities. A Mode S ADLP, as defined in RTCA/DO-218B, would provide the Mode S AE functionality required, but in the context of this Appendix, it does not necessitate the need for full Mode S ADLP capabilities.